Response to the STIWG Issues Paper on the GOES DCS

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National Environmental Satellite, Data, and Information Service (NESDIS)

Commitment to Operate the GOES DCS

- Published in the Federal Register
  - Notice to the Public
- 15 Part CFR 911
  - § 911.7 Continuation of the NOAA Data Collection Systems.
    - (a) NOAA expects to continue to operate DCS on its geostationary and polar-orbiting satellites, subject to the availability of future appropriations.
    - (b) … in the event that NOAA discontinues operation of GOES and/or POES, NOAA will provide, to the maximum extent practicable, advance notice and an orderly transition.
- GOES-R Series
  - Spacecraft Requirements in place for DCS support
  - Budgeted for in the NOAA Satellite Program
  - Provide DCS service 2014 - 2025
- GOES Program is a critical component of the National Weather Service Modernization Program

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STIWG Issue Number 1

- Continuity of Command and Control (C&C)
  - Documented in the Wallops Business Continuity Plan
  - Plan is tested every 6 months
- NOAA has two Backup Command and Control Facilities for GOES
  - Wallops Backup Facility (WBU)
    - Operable from NOAA Satellite Operations Facility (NSOF), Wallops Command and Data Acquisition Station (WCDAS) or locally for GOES East or GOES West
    - Full redundancy for a single spacecraft
  - Fairbanks Command & Data Acquisition Station (FCDAS)
    - Operable from NSOF, WCDAS or locally for GOES West
    - Full redundancy for a single spacecraft
- Geographic Separation
  - WCDAS to WBU
    - 120 miles
  - WCDAS to FCDAS
    - 3,380 miles

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STIWG Issue Number 2

- GOES Data Collection System (DCS)
  - DCS Automatic Processing System (DAPS)
    - Primary System
    - Fully Redundant within DAPS
    - Located at the WCDAS
- DAPS Backup
  - DCS Alternate Data Dissemination System (DADDS)
  - Provides basic data distribution capability in the event of a complete DAPS failure
    - DOMSAT and NWSTG
    - Distributes all Data Collection Platform (DCP) messages
  - Initial capability scheduled for installation January 31, 2007
  - Enhanced capability (redundancy, automatic failover, etc.) by July 2007
- Plans for DADDS Redundancy
  - Deploy and build upon the initial DADDS capability
  - Establish a redundant DADDS at the NSOF
    - Planned for 3rd Quarter CY07

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STIWG Issue Number 2 (continued)

- Geographic Separation
  - WCDAS 120 miles from NSOF/WBU
  - Meets Critical Infrastructure Protection (CIP) requirement of 50 mile separation
- DAPS Replacement
  - DADDS is a building block for the replacement of the current DAPS
    - $500K in FY06 funding obligated
    - $1500K in FY07 funding allocated and available
  - DADDS is being developed using a modular approach
    - Allows flexibility in design and architecture
    - Demonstrates capability in measurable segments
    - Provides greater project control and contractor management
      - Discrete milestones vs major deliveries
      - Minimize cost and schedule risks
    - Avoids tightly integrated and inter-dependant design
      - Major weakness in the DAPS-II project

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STIWG Issue Number 3

- NOAA regularly reviews and updates Continuity of Operations Plans (COOP), Business Continuity Plans (BCP), and Critical Infrastructure Protection (CIP) Plans
- NOAA regularly tests the referenced plans
  - Monthly, Quarterly, etc. depending on the specific plan requirements
- STIWG review of plans affecting GOES DCS
  - NOAA satellites and ground systems are designated as National Critical Infrastructure assets
  - Referenced documents are classified and controlled
  - Documents can be released for review with agreement on appropriate safeguards
- Results of COOP, BCP and CIP plan test results can be reviewed at future STIWG meeting
  - Highlight any issues affecting GOES DCS

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STIWG Issue Number 4

- Since 1994, NOAA has maintained a 100% satellite availability for the GOES DCS service
- The GOES communications subsystems are historically among the most reliable spacecraft components
  - DCS transponders proven to be extremely reliable
  - GOES spacecraft designed on commercial communications satellite platforms
- Current GOES availability – 4 satellites
  - GOES 11 and 12 operational
  - GOES 10 supporting South American operations
  - GOES 13 in on-orbit storage
    - Replacement in the event of an operational satellite failure

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STIWG Issue Number 5

- The GOES-N (13) O and P requirements are fixed
  - GOES-13 launched and stored in-orbit
  - Requirements for O and P embedded in fixed price contract
  - GOES O and P manufacturing status preclude any requirement changes
- NOAA will review the current GOES-R requirements and assess options for transponder configurations

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Partnership

NOAA recognizes the importance of the GOES DCS stakeholders and welcomes the opportunity to increase the effectiveness of communications on issues of mutual interest. We acknowledge the role of the STIWG in representing the broader GOES DCS user community's interests, and their desire to assist NOAA in exploring options and making decisions that impact the planning, operation and future of the GOES DCS Program.

At NOAA, we have a "One NOAA" philosophy, in which we work across organizational boundaries to achieve our common goals. Adopting the same philosophy for the GOES DCS will insure a successful future for a program that is critical to the protection of life and property in our Nation.

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Questions

Thank You

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